WHAT IS CLAIMED IS:

1. A carrier for cell attachment or fixation formed by the following steps:

(a) forming a fiber by extruding a melted polymer from a nozzle;

(b) extending the fiber and shaping the extended fiber to form a non-woven structure; and

(c) activating the surface of the non-woven structure to have cell affinity.

2. The carrier of Claim 1 being a single layer sheet.

3. The carrier of Claim 1, wherein the diameter of the extended fiber is between 2 and 15 micrometers.

4. The carrier of Claim 1, wherein the non-woven structure is a three-dimensional branch-like structure.

5. The carrier of Claim 1, wherein the porosity of the non-woven structure is between 40% and 90%.

6. The carrier of Claim 1, wherein the surface is wrinkled or rough.

7. The carrier of Claim 1, wherein the fiber is formed by a melt blowing process.

8. The carrier of Claim 1, wherein the carrier is circular, square, polygonal, strip or irregular sheet.

9. The carrier of Claim 1, wherein the thickness of the carrier is between 200 and 600 micrometers.

10. The carrier of Claim 1, wherein the carrier is circular and has the diameter of between 2 and 10 mm.

11. The carrier of Claim 1, wherein the polymer is selected from the group consisting of polyethylene, polypropylene, polyurethane, polyester, polyacrylonitrile, polyvinyl acetate compounding, polyvinyl alcohol, polyactic acid, polyvinylidene chloride, polystyrene, polybutadiene, glass fiber, cellulose, fluorocarbon resin, collagen and the copolymer thereof.

12. The carrier of Claim 1, wherein the surface of the non-woven structure in step (c) is treated by an activated grafting treatment to have cell affinity.

13. The carrier of Claim 12, wherein the activated grafting treatment comprises the following steps：

(a) activating the surface of the non-woven structure; and

(b) grafting a functional group on the activated surface of the non-woven structure.

14. The carrier of Claim 13, wherein the surface of the non-woven structure in step (a) is activated by plasma, corona, ultraviolet, radiation or wet type chemistry.

15. The carrier of Claim 13, wherein the activated surface of the non-woven structure in step (b) is grafted by exposing the surface of the non-woven structure to a monomer having both an unsaturated functional group and a polar functional group.

16. The method of Claim 15, wherein the unsaturated functional group is selected from a double bond or a triple bond.

17. The method of Claim 16, wherein a compound with the unsaturated functional group is selected from the derivatives of alkyne or alkene.

18. The method of Claim 15, wherein the polar functional group is selected from amino group, carboxylic group, hydroxyl group or sulfonate.

19. The method of Claim 18, wherein a compound with the polar functional group is selected from amine, carboxylic acid, alcohol, sulfonate or the derivative thereof.

20. A method for preparing the carrier for cell attachment or fixation, comprising the following steps:

(a) forming a fiber by extruding a melted polymer from a nozzle;

(b) extending the fiber and shaping the extended fiber to form a non-woven structure; and

(c) activating the surface of the non-woven structure to have cell affinity.

21. The method of Claim 20 further comprising a step of wrinkling or roughing the surface of the non-woven structure before activating the surface.

22. The method of Claim 21, wherein the wrinkled or rough surface of the non-woven structure is formed by a hot pressing step.

23. The method of Claim 20, wherein in step (b) the fiber is extended mechanically in a condition of hot air.

24. The method of Claim 20, wherein in step (c) the surface of the non-woven structure is activated by an activated grafting treatment.